CLAIMS

1-14. (Canceled)

15. (Currently Amended) Process for estimating a propagation channel formed by successive symbols of a multi-carrier signal, each symbol comprising at least one reference pilot and a plurality of frequencies carrying data, the process comprising:

extracting ~~the~~ said at least one reference pilot present in each of ~~the~~ said symbols; and for each of said symbols:

obtaining a first estimate of ~~the~~ said propagation channel, by time/frequency interpolation on ~~the~~ said extracted at least one reference pilot;

independently correcting ~~the~~ each of said at least one reference pilot, in phase and amplitude, and as a function of ~~the~~ said first estimate, to output ~~pilots~~ a corrected pilot with phase and amplitude correction, said correction step including a step to calculate an amplitude and phase error vector for each of ~~the~~ said at least one reference ~~pilots~~ pilot; and

obtaining a second estimate of ~~the~~ said propagation channel, by analysis of ~~the~~ said corrected ~~output~~ pilot.

16. (Cancelled)

17. (Currently Amended) Process for estimating a propagation channel according to claim 15, wherein ~~the~~ said error vector calculation step includes averaging of a set of error vectors obtained on at least one symbol.

18. (Currently Amended) Process for estimating a propagation channel according to claim 17, wherein ~~the~~ said averaging is calculated on each symbol.

19. (Currently Amended) Process for estimating a propagation channel according to claim 17, wherein ~~the~~ said set of error vectors only includes error vectors that satisfy at least one predetermined quality criterion.

20. (Currently Amended) Process for estimating a propagation channel according to claim 15, wherein ~~the~~ said calculation step for an amplitude and phase error vector comprises a preliminary step in which ~~the~~ said pilots with an amplitude less than a first predetermined minimum average threshold and/or greater than a second predetermined maximum average threshold are rejected.

21. (Currently Amended) Process for estimating a propagation channel according to claim 15, wherein ~~the~~ said second estimate includes an equalisation step that depends on the first estimate.

22. (Currently Amended) Process for estimating a propagation channel according to claim 21, wherein ~~the~~ said equalisation step is performed on all carrier frequencies of each of ~~the~~ said symbols.

23. (Currently Amended) Process for estimating a propagation channel according to claim 21, wherein the process comprises a step after ~~the~~ said equalisation step to calculate a pulse response of the propagation channel as a function of the at least one reference pilot equalized by the equalization step, for refining synchronisation of receivers in time.

24. (Currently Amended) Process for estimating a propagation channel according to claim 15, wherein ~~the~~ said the reference pilot correction step includes a division of these pilots by the first estimate.

25. (Currently Amended) Process for estimating a propagation channel according to claim

17, wherein ~~the~~ said correction step of the at least one reference pilot also includes a final step to correct all equalised useful carriers taking account of an average value obtained as a result of ~~the~~ said averaging.

26. (Previously Presented) Process for estimating a propagation channel according to claim 15, and further comprising using the process for correction of at least one phase and/or amplitude error common to two cells in a same OFDM (Orthogonal Frequency Division Multiplex) type symbol.

27. (Currently Amended) A device for estimating a propagation channel formed of successive symbols of a multi-carrier signal, each symbol comprising at least one reference pilot, and a plurality of data carrier frequencies, the device comprising:

means for extracting ~~the~~ said at least one reference pilot present in each of ~~the~~ said symbols; and

means for obtaining estimates of said propagation channel, which comprises, for each of said symbols:

~~means for~~ making a first estimate of ~~the~~ said propagation channel, by time/frequency interpolation on ~~the~~ said extracted at least one reference pilot;

~~means of~~ independently correcting ~~the~~ each of said at least one reference pilot, in phase and amplitude, as a function of ~~the~~ said first estimate, to output ~~one or more pilots~~ at least one corrected pilot with phase and amplitude correction, said correction step including a step to calculate an amplitude and phase error vector for each of ~~the~~ said at least one reference ~~pilots~~ pilot; and

~~means of~~ making a second estimate of ~~the~~ said propagation channel, by analysis of ~~the~~ said ~~one or more pilots~~ at least one corrected pilot with phase and amplitude correction.

28. (Currently Amended) A device for estimating a propagation channel formed of successive symbols of a multi-carrier signal, each symbol comprising at least one reference pilot, and a plurality of data carrier frequencies, the device comprising:

an extraction element, which extracts the at least one reference pilot present in each of ~~the~~ said symbols; and

a first estimation element, which makes a first estimate of the propagation channel, for each of said symbols, by time/frequency interpolation on the extracted at least one reference pilot;

a correction element, which for each of said symbols independently corrects the at least one reference pilot, in phase and amplitude, as a function of the first estimate, to output ~~one or more pilots~~ at least one corrected pilot with phase and amplitude correction, said correction step including a step to calculate an amplitude and phase error vector for each of ~~the~~ said at least one reference ~~pilots~~ pilot; and

a second estimation element, which for each of said symbols makes a second estimate of ~~the~~ said propagation channel, by analysis of the ~~one or more pilots~~ at least one corrected pilot with phase and amplitude correction.